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editorials

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Improvements in Burn Care

The improvement in burn care, as reflected in increased survival of burn patients, that has occurred over the past 15 years is well documented in the article by Feller et al (p 2074) elsewhere in this issue. Their report refutes emphatically the skepticism of other authors recorded in publications (in some of which reliance has been placed on retrospective, nonphysician estimation of burn size) impugning burn unit and burn center cost/benefit ratios and care effectiveness. The data presented confirm generally improved survival and shortened hospital stay during three successive periods of six, four, and four years, respectively, in more than 37,000 burn patients treated in burn care facilities participating in the National Burn Information Exchange Data Collection Program.

In addition to the direct patient care benefits of special burn care facilities noted by the authors, such institutions, by permitting concentration of experience, provide a necessary training ground for those who will provide burn care at other treatment sites. Such education and training functions provide further justification of the cost of special burn treatment facilities.

The data reporting a lethal area of burn for 50% of population (LA50) of 71.2% for burn patients aged 5 to 34 years may be overly optimistic, since published and unpublished data from individual burn centers in this country have reported somewhat lower LA50s. It is disappointing that the authors give no consideration to the possibility that systematic overestimation of burn size may have occurred at the participating burn care facilities (some of the contributing institutions care for only 50 or slightly more burn patients per year) and account for their overly optimistic estimate in that group. Such an effect would be most evident in this age group, because it contains the largest number of patients.

Although expeditious wound closure, as mentioned by the authors, and the nonspecific effect of improved general care and nutrition may, in part, be responsible for the improved survival noted, no consideration has been given to the possibility that a greater fraction of the burns of those patients treated in recent years has been superficial second-degree burn, ie, that which will heal within three weeks. Such burns, which are much less susceptible to infection and are associated with less metabolic stress and mortality, would be anticipated to have increased in patients treated at burn specialty centers as the result of regionalization of burn care and improved patterns of referral. Only a replotted of burn size at three weeks postburn will permit such an effect to be identified, and such a project should certainly be carried out during the next study

period of the Exchange. Confirmation of a change in burn depth distribution in the patient population treated at burn centers would in no way denigrate the findings reported in this article, but would suggest another mechanism as being at least in part responsible for the improved survival recorded, ie, the effectiveness of regionalization of burn care with prompt referral of patients to specialized treatment facilities so that conversion of second-degree burns to full-thickness injuries is prevented and early healing facilitated by the treatment provided at those facilities.

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